

## **ChatGPT and Service Design**

## **Clovis Alvarenga Netto**

The global practice in Operations Management and Service Design has brought the growing need for practical techniques and tools for innovation. Services are fluid, dynamic, and experience-based, often co-produced in real-time by customers and employees, challenging to measure, and mediated by technology. While these considerations have already been conveniently addressed in traditional project management, they are essential for Service Innovation, where the triad of People, Technology, and Processes becomes indispensable.

People refer to customers and designers, Technology's most significant current impact is in Artificial Intelligence (AI) and ChatGPT, and Processes encompass new Business Models and Macroprocess Management. Designdriven Service innovation

has brought a true revolution in projects by adding value to the customer.

As a historical evolution, Project Management has brought a significant set of concepts, techniques, and tools. However, despite its success, in recent years, there has been an increase in criticism by practitioners, suggesting that methods should be adapted due to the growing number of short-duration projects that require new competencies from designers, such as flexibility, resilience, and data management skills.

Considering that Service Design has evolved rapidly, in addition to the design's characteristics related to function and meaning, competencies need to work with empathy to understand the needs of customers and users. This gave rise to Design Thinking, which proposes an effective change in the attitude of designers and practitioners in developing new products and services. Service Design is an application of Design Thinking in Services.

The approach of Design Thinking involves identifying opportunities, framing the problem, thinking creatively, generating solutions, adopting a multilateral perspective, co-creating, making unconventional associations, prototyping, and testing the best solutions, supported by the triad of People, Technology, and Processes. Artificial Intelligence (AI) and its tool ChatGPT have also contributed to this movement of changes in Service Design. At least three essential principles of Service Design enormously benefit from Artificial Intelligence:

- 1. User-centred (services should be tested through the customer's perspective).
- 2. Co-creative (all stakeholders should be included in the service design process).
- 3. Holistic (the entire service environment must be taken into consideration).

The current Service Design is used to create or remodel services, review concepts and ways of relating to them,

and generate innovation and improvements. It is an interdisciplinary approach of great value to service innovators. It is a new way of thinking, more autonomous. All Design Thinking processes have a user-centered approach, which

Al and its tool ChatGPT have contributed to the movement of changes in Service Design

> develops every new service based on needs and desires. Service design is essential for a knowledge-based economy.

Regarding Human-Centered Design, both customer needs and designer inspirations need to be considered and facilitated by AI. The intriguing question is: what changes in Service Design and Innovation (SDI) with the advent of Artificial Intelligence? AI tools will impact work in fields such as Education, Communication, Customer Service, Law, and Service Design, to name a few. From the SDI perspective, it is relevant to consider Customer Experience (CX) and User Experience (UX) and correlate customer behavioral data for which appropriate situations where ChatGPT can contribute are:

1- The expectation is that machines help gain efficiency by gathering customer opinions, service issues, and competitive information. For this, experience maps synthesized into clusters and personas can help focus on what adds value to the customer.

2- Interaction between customers and "machines" through dialogue can be more effective than pre-prepared scripts. Customers bring unstructured demands



in terms of vocabulary and questioning, and it is necessary to understand their real information needs. Automation can transform unstructured requests into predefined service situations with well-thought-out routing by the service-providing organization.

3- People must be at the center of services, so incorporating historical records of resolved cases provides a solid foundation for organizational decisions. The design team should include customer service values with the support of higher hierarchical levels or leaders within the organization.

4- ChatGPT brings complementary and multidisciplinary perspectives, which means there may not be a single "truth" for customer responses, but a range of more accepted actions and exceptions that deserve attention, quantified adequately in importance and impact. These directions are based on records, not assumptions.

5- Historical records of experiences within the organization, reported impartially in the literature, can reveal that some customer service premises are incorrect or have become pure legends within the organization. The active involvement of company leadership brings responsibility to service design for designers, with the support of senior management, rather than relying solely on individual judgments at each Moment of Truth.

6- ChatGPT allows the simulation of risk situations and evaluation of the consequences of decisions made. It is not about levelling services and interactions but aligning the quality of the offered and practiced service with the guidance from top management within the organization.

7- To provide the best possible experience, holistic services must be thought of. Tools like the Service Process Flow (Service blueprint) enable the identification of critical processes within the organization, with guidelines and actions ranging from management to back-office work to front-line operations.

8- Treating historical service data and clustering them encourages the creation of innovative solutions that rely less on opinions and more on guidance from top management. Demands from unforeseen situations are also an inexhaustible source of opportunities, perpetuating the company as an innovative one and creatively surprising customers.

9- ChatGPT is an excellent ally in uncovering latent needs and new territories for innovation. Service Design has evolved significantly, gaining more autonomy and responsibility, and shifting many decisions to higher hierarchical levels within the organization. The technological support of ChatGPT has made these considerations feasible.

10- ChatGPT enables the identification and analysis of competition, highlighting practices already adopted in other organizations.

11- ChatGPT allows for greater agility in preliminary research with the organization's target customers. It facilitates research on customer behaviors, works that previously required much time, a large team, and inconsistent results.

It is possible to believe that ChatGPT favors orientation and decision-making in organizations. The technology enables more people, in line with the organization's purposes, to work on serving customers. This also fosters the emergence of new businesses and new business models. Human creativity is empowered.

It is important to note that ChatGPT is a tool, and the outputs of its adoption and application should be seen as a starting point for new refinements, initiatives, and innovation, not an end in itself.



**Clovis Alvarenga Netto** is a production engineer, Master's and Ph.D. in Engineering from the Polytechnic School from the Universidade de São Paulo, and a Collaborator Professor at CEST.

Academic Coordinator: Edison Spina This article is a result of the author' ascertainment and analysis, without compulsorily reflecting CEST's opinion.